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A THEORY OF INDUSTRIAL BUYING DECISIONS

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#61

College of Commerce and Business Administration
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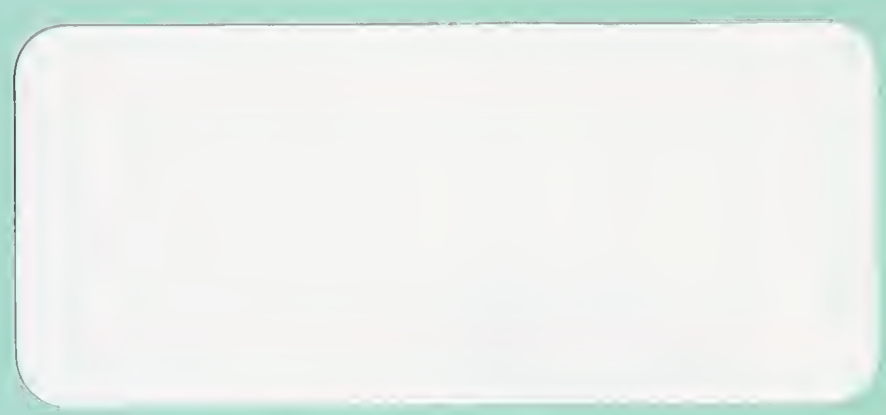

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INTRODUCTION

The purpose of this paper is to present a comprehensive theory of industrial buying decisions. A theory, in general, serves any of these functions: (a) descriptive function by which it describes and narrates a phenomenon with the use of a set of constructs, (b) delimiting function by which it explicitly states the purpose of the theory and specifies what it does not include, (c) integrative function by which it attempts to reconcile a variety of findings and hypotheses by a network of constructs, and finally (d) generative function which represents the extent to which it provides speculation, inventiveness, and generates new ideas [5].

Surprisingly, considerable empirical research on industrial buying behavior already exists today [4, 6, 12, 13, 14]. Therefore, the first two functions are already performed by others to a considerable extent. However, the third and the fourth functions warrant some attention because very little has been so far attempted to integrate existing empirical evidence and research thinking in a manner which would encourage further speculation and generate additional hypotheses.

BRIEF SUMMARY OF THE THEORY

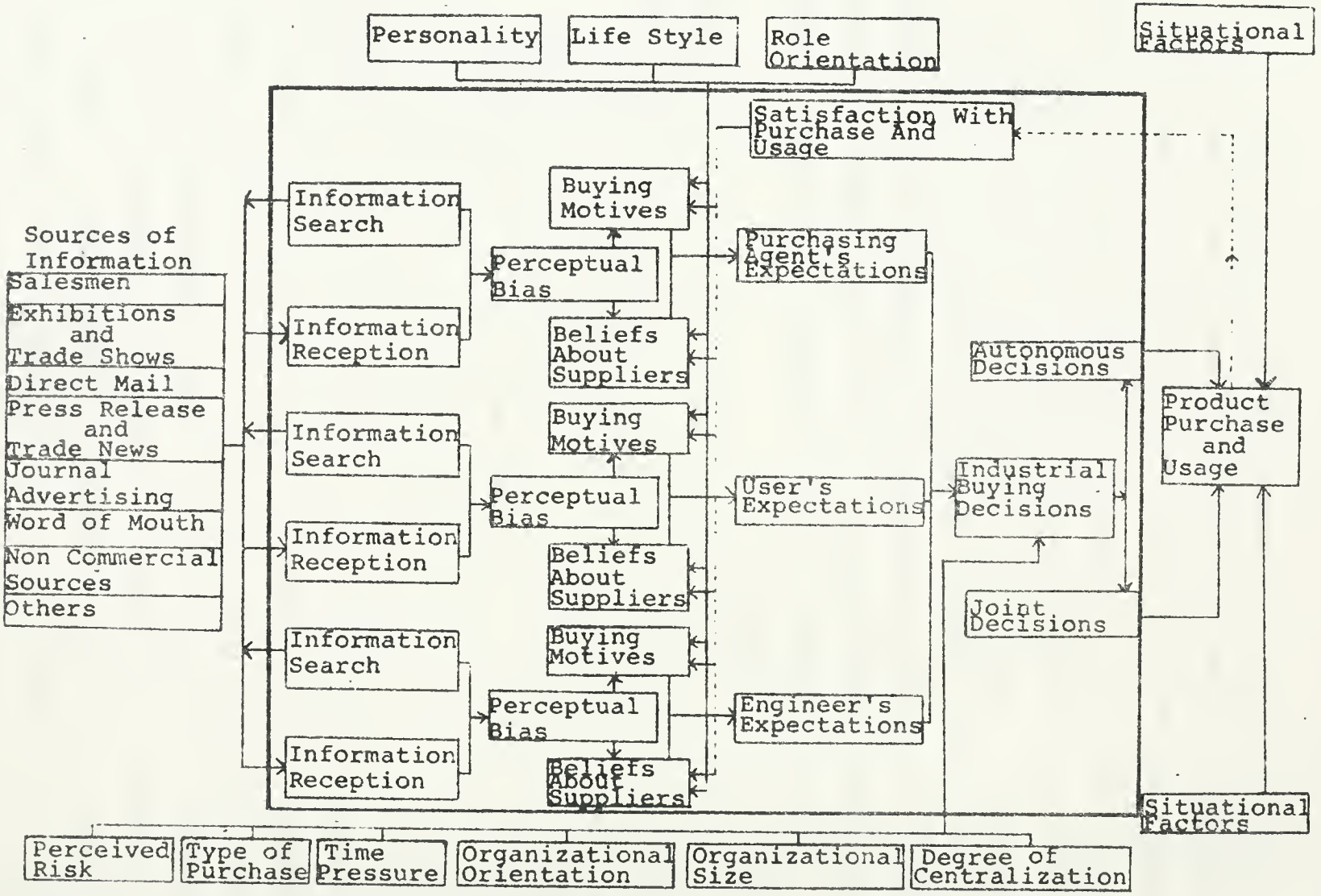
After reviewing the existing knowledge on industrial buying behavior, I have attempted to integrate various findings. Out of this integration has resulted the theory of industrial buying decisions described in this paper. I must, however, point out that what I am about to describe is as yet only a theory, untested in its totality although several parts have

substantial empirical support. The theory is summarized in Figure 1. If it looks quite similar to Howard-Sheth theory of buyer behavior [5], it is very true with respect to the format of the two theories and only partly true with respect to both the theoretical constructs and their network of relationships. Admittedly, the theory presented in this paper is a complex set of interactions among a large number of variables and also among several individuals in the buying organizations. But then industrial buying is indeed a complex process which mandates a comparable theory. I am indeed tempted to repeat my earlier viewpoint [9] in case someone finds the comprehensiveness of the theory unnecessary or impractical: If we do not remain far-sighted to comprehend the totality of the research area, we are liable to resemble the proverbial seven blind men and the elephant.

One can, however, somewhat simplify the utilization of the theory in a specific study in two ways. First, not all the constructs are likely to be active at a point in time because a number of them are temporally related to one another; several of them can be considered as antecedent conditions to hold constant the differences among specific decisions and among various decision-makers. Second, there are several exogeneous constructs in the theory which can be abstracted further in terms of more generalized factors. For example, the three constructs related to organizational orientation, size, and structure can be lumped into a single construct such as organizational style.

Before describing parts of the theory, it may be useful to provide a brief overview. At a point in time, the industrial organization is presumed to use a set of products and services provided by other organizations and individuals. The products-in-use can be classified into

Figure 1



A Theory of Industrial Buying Decisions

three broad categories: (1) Capital expenditure products which are treated as asset holdings, (2) consumables which become the raw materials to the company's own production of finished goods and (3) maintenance products and services which provide essentially a support function to both the man and the machine as productive agents in the organization. It is presumed that the specific types and brands of products-in-use are the result of a buying decision process in the organization which is either autonomous to personnel from one department or joint among personnel from at least the three departments of purchasing, production, and engineering. It is critical to specify the determinants of joint vs. autonomous decision-making in industrial buying behavior. The theory specifies that (1) there are three exogeneous factors - organizational orientation, organization size, and degree of centralization - which explain differences in joint vs. autonomous decision-making among industrial organizations, and (2) there are three other exogeneous factors - perceived risk, type of purchase and time pressure - which explain difference across a variety of purchases made by the same organization.

If a specific buying decision is autonomous, it is largely a function of the person's expectations (attitude) about specific suppliers and their brands. In addition, it is presumed that a number of situational factors intervene between a person's expectations of a supplier and choice of that supplier. These situational factors either facilitate or inhibit the nice logical relationship between attitude and choice behavior. A person's expectations are derived from the buying motives and his beliefs about various suppliers in terms of their capability of satisfying these buying motives. These three constructs - expectations, buying motives and evaluative beliefs - are learned from four separate sources:

(1) First, the information available before and during the decision-making process from a variety of sources including the mass media, and word-of-mouth, as well as the cognitive processing of this information so that it remains congruent with the individual's stored information; (2) Second, the inter-departmental influences exerted by other department personnel in the process of making purchase decisions; (3) Third, there is the learning effect from past experiences of the individual as the decision-maker, especially his satisfaction or dissatisfaction with specific suppliers and their products; finally (4) there are a number of antecedent factors including the individual's personality life style and role orientations which have exerted considerable influence in the past to mould his cognitive world in a certain way. It is presumed that the autonomous decision-maker, however, takes into account the specific requests and preferences of other personnel to a more or less degree depending upon his organizational position and de facto status he enjoys among his peer groups.

Joint buying decisions in the industrial organizations are, by definition, more complex, and generally they entail greater time intervals between initiation and completion. Not only do they cause greater communication and interaction among various departments, but also evoke inter-departmental conflicts and their resolutions. The theory states that both the necessary condition (felt need of joint decision-making) and the sufficient conditions (differences in goals and perceptions among departments) are likely to be prevalent in industrial organizations to entail conflict and its resolution in several ways.

DESCRIPTION OF PARTS OF THE THEORY

Let me now describe the theory in detail. The following are meaningful

subparts at which level it is easier to discuss the theory in greater depth: (1) Individuals in the organization involved in buying decisions and their cognitive world of buying motives, beliefs about the suppliers and perceptual processes; (2) Determinants of autonomous vs. joint decision-making process, and (3) process of joint decision-making with consequent inter-group conflict and its resolution.

Cognitive World of Individuals in the Organization

Contrary to the popular belief, industrial buying decisions are not solely in the hands of the purchasing agents [4, 8, 10]. Typically, one finds that at least three departments are continuously involved in buying decisions to a more or less degree. The theory classifies them as personnel in the purchasing, engineering and production departments. The production people are the end users of the products, engineering people set the quality control standards and specifications, and the purchasing agents carry out the process of procuring and buying the products in accordance with the specifications and user requirements. There is typically a great deal of interaction between these three departments, and often the buying decisions are jointly made by them.

At a point in time, each person has a set of expectations (low or high) about the products and suppliers of specific brands. These expectations toward the same supplier or brand are presumed to be different among the three parties because of differences in buying motives and beliefs about suppliers among them. For example, in buying a machine tool, the engineer may be looking for excellence in quality, the production manager may be seeking prompt delivery, proper installation, and serviceability, but the purchasing agent may be looking for maximum price advantage and other financial considerations. Furthermore, the evaluation

of a specific supplier such as Colchester or Alfred Herbert may be different among these persons.

The differences in buying motives and beliefs about the products and suppliers are themselves governed by three different factors. The first relates to the individual decision-maker's background and orientations. The theory specifies a total of three exogeneous variables to represent this factor: personality, life style, and role orientation of the individual. It is impossible to describe in this paper how each of these variables influences a person's goals and perceptions. However, we may easily state that it is these exogeneous variables which blend together what the individual's personal motives and beliefs are and what he perceives them to be as a corporate employee. In other words, the makeup of the individual expressed in these variables will heavily influence his interpretation of corporate goals and functions [11].

The second factor is the sources of information and communication outside the organization. The bulk of this information is likely to be from commercial sources although word-of-mouth communication among friends and colleagues is also likely to be common. Surprisingly, not all the three parties have an equal opportunity to be exposed to the outside information. It is a common knowledge that in many companies, the salesman is not allowed to communicate directly with the engineer or the user of the product. In general, accessibility of information is likely to be greater with the purchasing agent. However, the user and the engineer may obtain more objective information from their peer groups in other organizations.

Not only are there differences in the quantity and type of information to which each party is likely to be exposed, we also find that the processing of information received also varies from individual to individual. This is

depicted by the perceptual bias construct in the model. Basically, it represents the selective distortion and retention of information received which each individual goes through to establish cognitive consistency between his existing knowledge and the new information. Finally, there are likely to be substantial differences among the three persons with respect to active search for information. It is hypothesized that active search is left to the purchasing agent by the other two persons.

A distinct source of information is the actual experience of buying and using the product. In view of the fact that this experience will vary among the three parties, it is possible that the degree of satisfaction each one derives from the same purchase decision will be different. This is included in the construct of satisfaction in the theory.

The third factor determining goals and beliefs of the three parties is the internal interaction and communication among themselves. It would seem that the purchasing agent is consciously influenced by the opinions of the engineer and the user because of his relatively low status in the organization [11].

Determinants of Autonomous vs. Joint Decision-Making

We know that not all the industrial buying decisions are joint among the three parties. There are several situations in which decision-making is relegated to one of the parties, although, not necessarily to the purchasing agent. In view of the fact that process of decision-making is different between autonomous decisions and joint decisions at least from the point of view of the supplier company, it is critical to identify factors which determine whether a decision is likely to be joint or autonomous.

The theory has isolated a total of six distinct exogeneous variables

three of which are anchored to the characteristics of the product, and the other three are anchored to the characteristics of the buying organization. One factor related to the product is the degree of perceived risk involved [1]. The greater the perceived risk of making a wrong decision the more will that decision tend to be joint rather than autonomous. Typically, we find greater risks associated with capital expenditures; however, there are a number of instances in the consumables and maintenance categories which are perceived to be of high risk. The second factor is the type of purchase [3]. If the purchasing activity is related to long-term planning and involved with capital expenditures, or if it is irrevocable, we would expect greater joint decision-making. On the other hand, if it is repetitive, routine, and is related to ordering consumables or maintenance items on a regular basis, the decision is likely to be more autonomous [4]. Finally, if the purchase decision has to be made under continued time pressure or in an emergency, it is likely to be autonomous rather than joint decision.

The three factors related to the organization are its orientation, its size and degree of centralization. If the organization is technology-oriented, we hypothesize that the engineering department will dominate and the decision will be mostly autonomous to the engineering people. If it is production-oriented, the user will dominate and once again it is likely to be autonomous. Second, if organization is very large, the decision-making is likely to be joint among the three parties. Finally, greater the degree of centralization in an organization less will be the joint decision-making in buying decisions. Thus, a privately-owned small company with technology or production orientation will tend to have greater autonomous decision-making whereas, a large public corporation

with decentralization policy will tend to have greater joint decision-making in buying behavior.

Process of Joint Decision-Making

The major thrust of the theory of industrial buying decisions is to investigate the process of joint decision-making. This includes initiation of the decision to buy, gathering of information, evaluating alternative suppliers, and last but not the least, resolving conflict among the parties who must jointly decide.

The decision to buy is usually initiated by either a continued need of supply or by the outcome of long-range planning. The formal initiation in the first case is typically from the production personnel by way of a requisition slip. The latter usually is a formal recommendation from the planning unit to an ad hoc committee consisting of the purchasing agent, the engineer and the plants manager. The information gathering function is typically relegated to the purchasing agent. If the purchase is a repetitive decision for standard items, there is very little information gathering. Usually, the purchasing agent calls up or writes to the preferred supplier and orders the items on the requisition slip. On the other hand, considerable active search effort is manifested for capital expenditure items especially those which are entirely new purchase experiences for the organization [11].

The most important aspect of joint decision-making process, however, is the assimilation of information, deliberations on it and the consequent conflict which entails in most joint decisions. According to March and Simon [7], conflict is present when there is a need to decide jointly among a group of people who have, at the same time, differences in goals and perceptions. In view of the fact that the latter is invariably present

among the three parties to industrial buying decisions, conflict becomes a common consequence of joint decision-making process; the buying motives and the beliefs about the products and suppliers are unfortunately considerably different between the engineer, the user, and the purchasing agent partly due to different educational backgrounds and partly due to company policy of reward for specialized skills and viewpoints.

The interdepartmental conflict is in itself not necessarily bad. What matters most from the organization's viewpoint is that how it is resolved. If it is resolved in a rational manner, one very much hopes that the final joint decision will also tend to be rational. If, on the other hand, conflict resolution is degenerated in what Strauss [10] calls tactics of lateral relationship, the organization will suffer from inefficiency and the joint decisions may be reduced to the process of bargaining and politiking among the three parties. Not only will the decision be based on irrational criteria but the choice of a supplier may be to the detriment of the buying organization.

If the inter-party conflict is largely due to disagreements on beliefs about the suppliers and their brands, it is likely that the conflict will be resolved in the problem-solving manner. The immediate consequence of this type of conflict is to actively search for more information, deliberate more on available information, and often to seek out other suppliers not seriously considered before. The additional information is then presented in a problem-solving fashion so that conflict tends to be minimized.

If the conflict among the three parties is primarily due to the disagreement on some specific criteria with which to evaluate suppliers, although, there is an agreement on the buying motives at a more fundamental level, it is likely to be resolved by persuasion. An attempt is made,

under this type of resolution, to persuade the dissenting member by pointing out the importance of overall corporate objectives and how his criterion is not likely to attain these objectives. There is no attempt to gather more information. However, there results greater interaction and communication among the parties and sometimes, even an outsider is brought in to reconcile the differences.

Both problem-solving and persuasion are useful and rational methods of conflict resolution. The consequent joint decisions, therefore, tend also to be more rational. Thus, conflicts produced due to disagreements on beliefs about the suppliers or on specific criterion are healthy from the organization's viewpoint even though they may be time consuming. On the other hand, we are likely to find a more typical phenomenon in which conflict arises due to fundamental differences in buying motives among the three parties. This is especially true with respect to unique and new buying decisions related to capital expenditure items. The conflict is resolved not by changing the differences in relative importances of buying motives of people but by the process of bargaining. The fundamental differences among the parties are conceded by all the members and the concept of distributive justice (tit for tat) is invoked as a part of bargaining. The most usual outcome is to allow a single party to autonomously decide in this specific situation in return for some favor or promise about reciprocating in future decisions.

Finally, if the disagreement is not simply with respect to buying motives but also with respect to style of decision-making, the conflict tends to be very grave and borders on the mutual dislike of personalities of the individual decision-makers. The resolution of this type of conflict is usually by politiking and back stabbing tactics. Unfortunately, it is

often too common to find such conflict resolutions in industrial buying decisions. The reader is referred to the sobering research of Strauss [10, 11] for further discussion.

Of course, bargaining and politiking are non-rational and inefficient methods of conflict resolution; the buying organization suffers from these conflicts. Furthermore, the decision-makers find themselves sinking below their professional, managerial role. The decisions are not only delayed but tend to be governed by factors other than achieving the corporate objectives.

SUMMARY

I have attempted in this paper to integrate existing research on industrial buying decisions by presenting a comprehensive theory of buying decisions among industrial and other formal organizations. The theory specifies that the industrial buying decisions are primarily based on interactions and influences among the purchasing agent, the users and the engineers. Unfortunately, each party has different objectives in, and perceptions about, the buying decisions. This often results in conflict especially when joint decision-making is necessitated. The conditions under which joint decisions are required are specified in the theory. Finally, the process of conflict resolution is described in terms of the March and Simon theory of organizations.

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